

What is claimed is:

1. An automatic software component creating system comprising:

5 a software component definition data storage section which stores software component definition data therein;

a software component creation rule storage section which stores software component creation rules therein;

10 a client program creation rule storage section which stores client program creation rules therein;

15 a software component creating section which creates a software component module with one or more software components based on said software component definition data and said software component creation rules in response to a start instruction; and

20 a client program creating section which creates a client program source code based on said software component definition data, said software component module, and said client program creation rules, when said software component module is created.

2. The automatic software component creating system according to claim 1, wherein said software component definition data includes one module data which includes at least one component data, which includes at least one method data, which includes at

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least one parameter data.

3. The automatic software component creating system according to claim 2, wherein said module data has a module name,

said component data has component data and  
5 component attribute data,

said method data has a method name, method attribute data, method call format data, and method call order data, and

said parameter data has a parameter name, a  
10 parameter type, and a parameter type data.

4. The automatic software component creating system according to claim 2, further comprising:

a software component defining section which defines said software component definition data from  
5 inputted data to store in said software component definition data storage section.

5. The automatic software component creating system according to claim 4, wherein said software component defining section comprises:

a component data defining section which  
5 defines said component data associated with said module data from said inputted data;

a method data defining section which defines

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said method data associated with said component data  
from said inputted data; and

10           a parameter data defining section which defines  
said parameter data associated with the method data  
from said inputted data.

6.       The automatic software component creating  
system according to claim 1, wherein said software  
component creating section comprises:

5           a parameter creating section which creates  
parameter(s) from said software component definition  
data and parameter creation rules in response to a  
parameter creation request;

10           a method creating section which generates said  
parameter creation request which creating method(s)  
from said software component definition data and  
method creation rules in response to a method creation  
request;

15           a component creating section which generates  
said method creation request while creating  
component(s) from software component definition data  
and component creation rules in response to a  
component creation request; and

20           a module creating section which generates said  
component creation request while creating said  
software component module from said software component  
definition data and module creation rules.

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7. The automatic software component creating system according to claim 6, wherein said software component creation rules comprises:

5 said module creation rules, in each of which a rule for creation of a project file of said module is described;

10 said component creation rules including component framework creation rules in each of which a rule for creation of a framework of said component is described, property creation rules in each of which a rule for creation of property of said component is described, and initial value creating rules, in each of which initial values to be set in said property are described;

15 said method creation rules including method framework creation rules in each of which a rule for creation of a framework of said method is described, and method logic creation rules in each of which logic to be executed by said method is described; and

20 said parameter creation rules in each of which it is described that a parameter name and a type of parameter are linked.

8. The automatic software component creating system according to claim 1, wherein said client program source code creating section comprises:

a parameter definition creating section which

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module creation rules of said client program creation  
rules while respectively outputting said parameter  
definition creation request, said pre-process creation  
35 request, said component call creation request and said  
post-process creation request to said parameter  
definition creating section, said pre-process creating  
section, said component call creating section, and  
said post-process creating section.

9. An automatic software component creating method  
comprising the steps of:

(a) creating a software component module with  
one or more software components based on software  
5 component definition data and software component  
creation rules in response to a start instruction; and

(b) creating a client program source code based  
on said software component definition data, said  
software component module, and client program creation  
10 rules, when said software component module is created.

10. The automatic software component creating  
method according to claim 9, wherein said software  
component definition data includes one module data  
which includes at least one component data, which  
5 includes at least one method data, which includes at  
least one parameter data.

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11. The automatic software component creating method according to claim 10, wherein said module data has a module name,

said component data has component data and  
5 component attribute data,

said method data has a method name, method attribute data, method call format data, and method call order data, and

said parameter data has a parameter name, a  
10 parameter type, and a parameter type data.

12. The automatic software component creating method according to claim 10, further comprising the step of:

(c) defining said software component definition  
5 data from inputted data.

13. The automatic software component creating method according to claim 12, wherein said (c) defining step comprises the steps of:

defining said component data associated with  
5 said module data from said inputted data;

defining said method data associated with said component data from said inputted data; and

defining said parameter data associated with the method data from said inputted data.

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14. The automatic software component creating method according to claim 9, wherein said (a) creating step comprises the steps of:

(d) generating a component creation request  
5 while creating said software component module from said software component definition data and module creation rules of said software component creation rules;

(e) generating a method creation request while  
10 creating component(s) from software component definition data and component creation rules of said software component creation rules in response to said component creation request;

(f) generating a parameter creation request  
15 which creating method(s) from said software component definition data and method creation rules of said software component creation rules in response to said method creation request; and

(g) creating parameter(s) from said software  
20 component definition data and parameter creation rules in response to said parameter creation request.

15. The automatic software component creating method according to claim 9, wherein said (b) creating step comprises the steps of:

(h) creating declaration and definition of each  
5 of said parameters corresponding to the method to be

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called from a client program from said software  
component definition data and parameter definition  
creation rules of said client program creation rules  
in response to a parameter definition creation  
10 request;

(i) creating a pre-process which needs to be  
executed prior to a call of said software component  
based on said software component definition data and  
pre-process creation rules of said client program  
15 creation rules in response to a pre-process creation  
request;

(j) creating a call process of each of said  
methods of said software component based on said  
software component definition data and component call  
20 creation rules of said client program creation rules  
in response to a component call creation request; and

(k) creating a post-process, which needs to be  
executed after the call of said software component  
based on said software component definition data and  
25 post-process creation rules of said client program  
creation rules in response to a post-process creation  
request; and

(l) creating a framework of said client program  
source code based on said software component  
30 definition data and client module creation rules of  
said client program creation rules while generating  
said parameter definition creation request, said pre-

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process creation request, said component call creation request and said post-process creation request.

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